

Appl. No.: 10/604,934
Amdt. Dated: 6/18/2007
Reply to Office action of: 03/23/2007

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AMENDMENTS TO THE DRAWINGS:

There are no amendments to the drawings being submitted herewith.

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REMARKS/ARGUMENTS

Claims 1, 3, 5, and 8 remain in this application. Claim 1 has been amended to remove language having insufficient antecedent basis as well as to more clearly define the claimed invention. Claims 3 and 8 have been amended to maintain proper dependency. Support for these amendments may be found for example, in paragraph 27 of the specification.

No new matter has been introduced by these amendments to the claims.

In view of the examiner's earlier restriction requirement, Applicant continues to retain the right to present originally filed claims 11 – 20 in a divisional application.

Claim 1 has been rejected under 35 USC 112 as failing to point out and distinctly claim the subject matter which the applicant regards as his invention. Specifically, the Examiner states:

Claim 1 recites the limitation "said vertical drive nut device: in the line of the claim. There is insufficient antecedent basis for this limitation in the claim.

In view of the remarks herein, and the amendments to Claim 1, it is submitted that this rejection is now moot and said rejections removal is requested.

Claims 1, 5, 6, 9, and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by Murphy et al. (USP 4,500,136). Specifically, the Examiner states:

Re clm 1,4,5,10: Murphy discloses a drive nut device (Figure 6) comprising a one-piece drive nut body (104,106) having a predetermined shape and further having a first end (near 112) and a second end (near 98), said first end having a bore for mounting to a seat movement member (112; C6 L20 – 28), and said second end having a drive nut (104) formed as an integral part thereof, said drive nut having a threaded bore (C6 L10 – 12) passing through the longitudinal axis of said drive nut, and a longitudinal length predetermined to prevent undesired non-longitudinal axis movement of said drive nut device.

Re clms 6, 11: Murphy discloses a drive nut body (104,106) having a generally L-shape (Figure 6).

Re clm 9: Murphy discloses a drive nut (104) having a longitudinal axis that is substantially at a right angle (Figure 6) to said bore for mounting to a seat vertical movement member (112).

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Applicant respectfully traverses these rejections. The key to Applicant's invention is a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

A fair reading of the Murphy et al. (USP 4,500,136) reference discloses an adjustable seat bolster device providing for the simultaneous and mirror movement of a pair of opposing bolsters moveably mounted on opposite sides of a seat portion (see for example, Col. 2, lines 23 – 33). Said adjustable seat bolster device having a mechanism that utilizes a number of drive nuts to allow for mechanically changing the bolsters positions as well as providing for the paired bolsters to move synchronously (see for example, Col. 5, line 7; Col. 6, line 12; Col. 7, line 11; and Col. 7, line 63). These disclosed drive nuts are not disclosed as being formed from sheet steel nor is there any suggestion that such construction can be utilized. On the contrary, the teaching clearly discloses individual drive nuts independent of any bracket portion. And nowhere is there disclosed, taught, fairly suggested a drive nut device wherein the drive nut has a predetermined longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device, a type of movement that creates the feeling of sloppy parts fit to the seat occupant.

Contrary to the Examiner's arguments there is nothing in the Murphy et al. (USP 4,500,136) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for a one piece drive nut device having a drive nut having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device incorporated as an integral part of the device, to arrive at Applicant's claimed invention. Furthermore, as admitted by the Examiner, there is nothing in the Murphy et al. (USP 4,500,136) reference teaching the use of sheet metal to

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form the drive nuts taught therein nor the desirability of extruding the drive nut portion of the one piece sheet steel drive nut device so as to have a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body.

Clearly, when viewed in this light the Murphy et al. (USP 4,500,136) reference does not disclose, teach, or suggest the use of a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

Claims 2 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (USP 4,500,136) in view of applicant's admitted prior art [0031].

Specifically, the Examiner states:

Murphy discloses all of the claimed subject matter as described above.

Murphy does not disclose a drive nut device comprised of sheet steel.

The applicant's admitted prior art [0031] discloses that the use of sheet steel was well known at the time of the invention for the manufacture of various parts such as drive nuts for seat adjusters.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ a drive nut device comprised of sheet steel, as taught by applicant's admitted prior art [0031], in the device of Murphy for the purpose of decreasing weight, lower cost and ease of manufacture.

Applicant respectfully traverses these rejections. The key to Applicant's invention is a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a

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threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

A fair reading of the Murphy et al. (USP 4,500,136) reference discloses an adjustable seat bolster device providing for the simultaneous and mirror movement of a pair of opposing bolsters moveably mounted on opposite sides of a seat portion (see for example, Col. 2, lines 23 – 33). Said adjustable seat bolster device having a mechanism that utilizes a number of drive nuts to allow for mechanically changing the bolsters positions as well as providing for the paired bolsters to move synchronously (see for example, Col. 5, line 7; Col. 6, line 12; Col. 7, line 11; and Col. 7, line 63). These disclosed drive nuts are not disclosed as being formed from sheet steel nor is there any suggestion that such construction can be utilized. On the contrary, the teaching clearly discloses individual drive nuts independent of any bracket portion. And nowhere is there disclosed, taught, fairly suggested a drive nut device wherein the drive nut has a predetermined longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device, a type of movement that creates the feeling of sloppy parts fit to the seat occupant.

Contrary to the Examiner's arguments there is nothing in the Murphy et al. (USP 4,500,136) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for a one piece drive nut device having a drive nut having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device incorporated as an integral part of the device, to arrive at Applicant's claimed invention. Furthermore, as admitted by the Examiner, there is nothing in the Murphy et al. (USP 4,500,136) reference teaching the use of sheet metal to form the drive nuts taught therein nor the desirability of extruding the drive nut portion of the one piece sheet steel drive nut device so as to have a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body.

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Applicant's disclosure in the subject application at paragraph [0031] teaches that a) various parts of seat adjusters are known to be made of sheet metal, and b) the claimed sheet metal drive nut device may be made of well known sheet metal materials having known compositions and thicknesses. This is not a teaching that drive nut devices made of sheet metal are well known only that the claimed sheet metal drive nut device may be made of known sheet metals and does not require special material requiring more detailed disclosure for an artisan to reproduce the claimed invention.

Clearly, when viewed in this light the Murphy et al. (USP 4,500,136) reference, the teaching in applicant's application in paragraph [0031], and any combination of these references does not disclose, teach, or suggest the use of a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

Claims 2, 3, 7, and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (USP 4,500,136) in view of Reynolds (USP 5,139,380). Specifically, the Examiner states:

Murphy discloses all of the claimed subject matter as described above.

Murphy does not disclose a drive nut device comprised of sheet steel.

Reynolds teaches a drive nut (10) comprised of sheet steel having a thickness of from about 0.5mm to about 4.0mm (C3 L61-63) for the purpose of decreasing weight, lower cost and ease of manufacture.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ a drive nut made of sheet steel, as taught by Reynolds, in

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the device of Murphy for the purpose of decreasing weight,
lower cost and ease of manufacture.

Applicant respectfully traverses these rejections. The key to Applicant's invention is a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

A fair reading of the Murphy et al. (USP 4,500,136) reference, as mentioned above, discloses an adjustable seat bolster device providing for the simultaneous and mirror movement of a pair of opposing bolsters moveably mounted on opposite sides of a seat portion (see for example, Col. 2, lines 23 – 33). Said adjustable seat bolster device having a mechanism that utilizes a number of drive nuts to allow for mechanically changing the bolsters positions as well as providing for the paired bolsters to move synchronously (see for example, Col. 5, lines 5 – 21; Col. 6, lines 10 – 19; Col. 7, lines 7 – 17; and Col. 7, line 61 – Col. 8, line 2). These disclosed drive nuts are not disclosed as being formed from sheet steel nor is there any suggestion that such construction can be utilized. On the contrary, the teaching clearly discloses individual drive nuts independent of any bracket portion. And nowhere is there disclosed, taught, fairly suggested a drive nut device wherein the drive nut has a predetermined longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

Contrary to the Examiner's arguments there is nothing in the Murphy et al. (USP 4,500,136) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for a one piece drive nut device having a drive nut having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device incorporated as an integral part of the device, to arrive at Applicant's claimed invention. Furthermore, as admitted by the Examiner, there is nothing in the Murphy et al. (USP 4,500,136) reference teaching the use of sheet metal to

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form the drive nuts taught therein nor the desirability of extruding the drive nut portion of the one piece sheet steel drive nut device so as to have a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body. Just as critically, there is not found the required "necessary impetus to direct one skilled in the art" to combine this reference with any reference teaching the use of sheet metal to form drive nuts for any purpose. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Murphy et al. (USP 4,500,136) reference without first having read Applicant's application.

A fair reading of the Reynolds (USP 5,139,380) reference discloses a stamped threaded nut that can be formed as an individual nut or as a threaded nut portion of a larger device allowing the larger device to be secured to another device or component (see for example, Col. 5, lines 43 – 59). This reference does not, however, disclose, teach, or fairly suggest the use of the stamped threaded nut as a drive nut portion of a drive nut device, nor how such a stamped threaded nut may have mounting extensions formed thereon, or how pairs of rigid arms can be mounted thereto. Furthermore, the Reynolds (USP 5,139,380) reference does not disclose, teach, or fairly suggest the desirability of extruding the drive nut portion having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body. Thus, just as critically, there is not found the required "necessary impetus to direct one skilled in the art" to combine this reference with the Murphy et al. (USP 4,500,136) reference to arrive at using sheet metal to form drive nuts for any purpose. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Reynolds (USP 5,139,380) reference without first having read Applicant's application.

Contrary to the Examiner's arguments, as mentioned above, there is nothing in the Murphy et al. (USP 4,500,136) reference or the Reynolds (USP 5,139,380) reference which discloses, teaches or suggests to one skilled in the art how to modify the references, nor the required impetus to suggest such a combination and modification, to provide for the use of a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit, to arrive at Applicant's claimed

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invention. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Murphy et al. (USP 4,500,136) reference, the Reynolds (USP 5,139,380) reference, or any combination thereof, without first having read Applicant's application.

Clearly, when viewed in this light the Murphy et al. (USP 4,500,136) reference, the Reynolds (USP 5,139,380) reference, and any combination of these references does not disclose, teach, or suggest the use of drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

Claims 2, and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (USP 4,500,136) in view of Distasio et al. (USPGPub-20040047709). Specifically, the Examiner states:

Murphy discloses all of the claimed subject matter as described above.

Murphy does not disclose a drive nut device comprised of sheet steel.

Distasio teaches a drive nut (Figure 35j) comprised of sheet steel [0266] for the purpose of decreasing weight, lower cost and ease of manufacture.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ a drive nut made of sheet steel, as taught by Distasio, in the device of Murphy for the purpose of decreasing weight, lower cost and ease of manufacture.

Applicant respectfully traverses these rejections. The key to Applicant's invention is a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a

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threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

A fair reading of the Murphy et al. (USP 4,500,136) reference, as mentioned above, discloses an adjustable seat bolster device providing for the simultaneous and mirror movement of a pair of opposing bolsters moveably mounted on opposite sides of a seat portion (see for example, Col. 2, lines 23 – 33). Said adjustable seat bolster device having a mechanism that utilizes a number of drive nuts to allow for mechanically changing the bolsters positions as well as providing for the paired bolsters to move synchronously (see for example, Col. 5, lines 5 – 21; Col. 6, lines 10 – 19; Col. 7, lines 7 – 17; and Col. 7, line 61 – Col. 8, line 2). These disclosed drive nuts are not disclosed as being formed from sheet steel nor is there any suggestion that such construction can be utilized. On the contrary, the teaching clearly discloses individual drive nuts independent of any bracket portion. And nowhere is there disclosed, taught, fairly suggested a drive nut device wherein the drive nut has a predetermined longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

Contrary to the Examiner's arguments there is nothing in the Murphy et al. (USP 4,500,136) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for a one piece drive nut device having a drive nut having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device incorporated as an integral part of the device, to arrive at Applicant's claimed invention. Furthermore, as admitted by the Examiner, there is nothing in the Murphy et al. (USP 4,500,136) reference teaching the use of sheet metal to form the drive nuts taught therein nor the desirability of extruding the drive nut portion of the one piece sheet steel drive nut device so as to have a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body. Just as critically, there is not found the required "necessary impetus to direct one skilled in the

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art" to combine this reference with any reference teaching the use of sheet metal to form drive nuts for any purpose. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Murphy et al. (USP 4,500,136) reference without first having read Applicant's application.

A fair reading of the Distasio et al. (USPGPub-20040047709) reference, relating to the pertinent portion of the invention cited by the Examiner, discloses, relating to the pertinent portion of the invention recited by the Examiner, the use of sheet steel to make various configurations of locking clips and nuts formed by stamping and folding flat sheet steel into three dimensional forms (see for example, Figures 35h – 35j). The locking clips include various U-shaped configurations some of which have threaded boars to attach and lock a threaded bolt (see for example, Figures 46c, 46i, and 46j, 56 – 58, and 62). Also, disclosed are locking clips having various S-shaped configurations (see for example, Figures 36 – 40, and 42 – 44). In every case these are independent units that are not part of a larger device formed from a single piece of sheet steel. This reference also does not disclose the use of any of these assembly parts as suitable for use as a drive nut. In fact, by the very disclosure of these parts as an assembly for locking a bolt in a fixed position they would not work for a drive nut device which by definition must allow a bold or threaded rod to move back and forth through them. Thus, contrary to the Examiner's arguments, this reference teaches away from use of the claimed assembly or any part thereof as a drive nut, and more specifically, as a drive nut device having an integral drive nut located therein nor the desirability of extruding the drive nut portion of the one piece sheet steel drive nut device so as to have a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Distasio et al. (USPGPub-20040047709) reference without first having read Applicant's application.

Contrary to the Examiner's arguments, as mentioned above, there is nothing in the Murphy et al. (USP 4,500,136) reference or the Distasio et al. (USPGPub-20040047709) reference which discloses, teaches or suggests to one skilled in the art how to modify the references, nor the required impetus to suggest such a combination and modification, to provide for a drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end

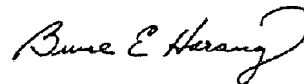
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having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit, to arrive at Applicant's claimed invention. Thus, there is no way one skilled in the art can arrive at Applicant's claimed invention from the Murphy et al. (USP 4,500,136) reference, the Distasio et al. (USPGPub-20040047709) reference, or any combination thereof, without first having read Applicant's application.

Clearly, when viewed in this light the Murphy et al. (USP 4,500,136) reference, the Distasio et al. (USPGPub-20040047709) reference, and any combination of these references does not disclose, teach, or suggest the use of drive nut device constructed as a single piece of sheet steel having a first end with a seat movement member mounting bore located there in and a second end having a threaded drive nut formed as an integral part of said single piece drive nut device having a wall thickness of from about 50 percent to about 85 percent greater than the nominal thickness of said drive nut body such that said single piece device is operatively a part of a seat movement unit. Said single piece drive nut device providing a complete device produced as a single piece without need of attaching separate parts such as a threaded bore drive nut, paired rigid arms, and extension studs on the threaded drive nut. Said drive nut device also providing a drive nut portion having a longitudinal length sufficient to prevent undesired non-longitudinal axis movement of said drive nut device.

In view of the remarks herein, and the amendments hereto, it is submitted that this application is in condition for allowance, and such action and issuance of a timely Notice of Allowance is respectfully solicited.

Respectfully submitted,



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